

REMARKS

The Office Action dated March 15, 2005 has been received and carefully reviewed. The following remarks form a full and complete response thereto. Claims 12-15 are pending in the application and submitted for reconsideration.

Claims 14 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/366,302 (now U.S. Patent No. 6,875,333). In the Office Action it was asserted that the conflicting claims not patentably distinct from each other because the '302 application claims a plating apparatus including a plating tank and means for stirring the plating solution beneath a target surface. The Applicant traverses the rejection and submits that the rejection is improper.

Since the present application was filed earlier than the '302 application, but the '302 application issued first, an obviousness-type double-patenting rejection is improper in the absence of a two-way obviousness determination. See MPEP 804. The Examiner did not make a two-way obviousness determination in the Office Action. Therefore, this rejection is improper.

Further, the Applicant submits that there is no two-way obviousness. The claims of the issued '333 patent each include a feature of a bar-like stirrer capable of being rotated while being oscillated in a motion plane substantially parallel to the target plating surface of the wafer. See, '333 patent at claims 1, 7, 8, and 20. The Applicant submits

that this feature would not have been obvious based on claim 14 of the present invention, which merely recites a means for stirring the plating solution to form an liquid-flow channel. The means for stirring is described in the specification as a donut-shaped disc 26 having a plurality of impellers 25, for stirring the plating solution. Thus, no two-way obviousness exists and the rejection is improper. Accordingly, the Applicant requests that the rejection be withdrawn.

Claims 12 and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by Nishio et al. (JP 05-175158, referred to herein as "Nishio"). The Applicant traverses with the rejection and submits that claims 12 and 14 recite subject matter not disclosed by Nishio.

Claims 12 and 14 recite the feature of a stirring means in means-plus-function format. Under 35 U.S.C. § 112, ¶6, means-plus-function claim elements incorporate the structural limitations corresponding to the function recited in the claim, and equivalents of those structural limitations. Here, the specification describes a donut-shaped disc 26 having a plurality of impellers 25, for stirring the plating solution (the recited function). The disc 26 rotates to stir the solution in order to forcibly distribute plating solution to the periphery of the target surface, especially the edge 32. See, e.g., Figs. 1 and 5 and the corresponding sections of the Specification. In contrast, Nishio only describes a disc having a plurality of injecting holes in it and not a rotating plate or a plurality of impellers. Although the plate is called a stirring plate in Nishio, it is clearly a different structure than that described by the present specification and claimed in claims 12 and

14. Thus, the Applicant submits that Nishio fails to disclose each and every elements of claims 12 and 14. Accordingly, the Applicant requests that the rejection be withdrawn and claims 12 and 14 be allowed.

Claim 14 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Keigler (U.S. Patent No. 6,251,250). Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Keigler. The Applicant respectfully traverses the rejection and submits that the rejection is improper.

Keigler has a U.S. filing date of September 3, 1999, well after the foreign priority dates (March 23, 1999, July 19, 1999 and August 25, 1999) of the present application. Pursuant 37 C.F.R. §1.55, a verified English translation of JP 237868/1999 is attached hereto, and Applicants submit that which JP 237868/1999 supports claims 12-15. Thus, Kiegler is unavailable as prior art against the present application and the rejections based thereon are improper. Accordingly, the Applicant requests that the rejections be withdrawn and claims 12-15 be allowed.

In view of the foregoing, the Applicant submits that the present application is in condition for allowance and requests that claims 12-15 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event that this paper is not timely filled, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

By



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